

Market trends and statistics based on the 2014 Freedonia global tape study

Overview:

- The global adhesive tape market is estimated at 39.3 billion square metres in sales volume, with an average sales price of \$1.03 per square metre
- The market size in terms of sales value is approximately \$40.5 billion
- Asia/Pacific, and China in particular, is leading in both production and sales
- Asia/Pacific increased its share of global adhesive tape production from 40% in 2003 to 55% in 2013
- Asia/Pacific accounted for 49% of global tape sales in 2013
- The difference of 6% between Asia/Pacific production and sales indicates that excess production volume is shipped out of Asia into different regions according to supply and demand
- The global adhesive tape market is growing 5% year-on-year in sales volume and 6.5% YoY in market value
- The average selling price will move from \$1.03 to \$1.11 per square metre between 2013 and 2018
- The specialised tapes segment is leading the adhesive tape trend with 5.4% YoY growth
- In terms of raw materials, the biggest component for the tape manufacturing business, the industry will move increasingly toward lightweight materials and down-gauging product specifications.

[View the complete slide presentation](#)

Afera's Dubrovnik conference presentation series

Anurag Yadav of Scapa Group plc, UK lectured at Afera's October 2014 Annual Conference in Dubrovnik on market trends and statistics presented in Freedonia's May 2014 report 'World Pressure Sensitive Tapes'. As Head of Global Product Portfolio Management at Scapa and a member of Afera's Marketing Committee, Mr. Yadav prepared a focussed review of Freedonia's 400-page study, which the Association purchased for the purpose of presenting to its membership.

The bottom line: An analysis of the 39.3 billion square metre world adhesive tape industry reveals that the tape market is growing in both sales volume and market value, with much of this concentrated in Asia/Pacific and China in particular; specialised tapes is the market segment leader; and in the area of raw materials, the industry will trend toward using lightweight materials and down-gauging product specifications.



PSA Overview

Asia/Pacific
 □ In 2003 accounted for 40% of world PSA production
 □ In 2013 this stood at 55%

Tape sales in more advanced economies declined between 2008 – 2013:
 □ Western Europe slowed
 □ Growth in the US at less than 1%.

Tape manufacturing:
 □ China is now world's largest manufacturer, supplying to APAC, Eastern Europe, and North America.
 □ Taiwan and Indonesia also produce tapes mainly destined for export markets.
 □ Italy is Europe's leading manufacturer, supplying much of the market in both Western and Eastern Europe.



Adhesive tape global overview

Mr. Yadav started by warning his audience that any enthusiasm over the figures he was about to share should be curbed. He also mentioned that there may be discrepancies in some of the market estimates, as Freedonia's information is collected from a variety of sources.

The global adhesive tape market is estimated at 39.3 billion square metres in sales volume, with an average sales price of \$1.03 per square metre. The market size in terms of sales value is approximately \$40.5 billion.

Asia/Pacific in general, and China in particular, is leading in both production and sales. Asia/Pacific increased its share of global adhesive tape production from 40% in 2003 to 55% in 2013. The region accounted for 49% of global adhesive tape sales in 2013. The difference of 6% between production and sales indicates that excess production volume is shipped out of Asia into different regions according to supply and demand. China is the largest manufacturer globally, exporting to APAC, Eastern Europe, and North America.

The European adhesive tape network.

Educational events. Technical standards. Market trends. Environmental regulations.

Tape sales in more advanced economies declined between 2008 and 2013. Western Europe slowed and the US grew less than 1%. Italy remains as Europe's single largest adhesive tape manufacturer, supplying both Western and Eastern Europe.

Demand overview

The good news is the global adhesive tape market is growing 5% year-on-year (YoY) in sales volume and 6.5% YoY in market value. Furthermore, the average selling price will move from \$1.03 to \$1.11 per square metre between 2013 and 2018.

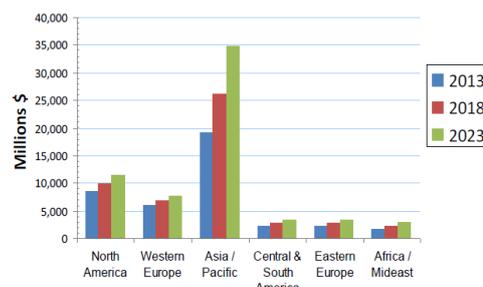
Asia/Pacific is beating the trend with the largest share of adhesive tape production. Carton sealing tape still makes up about 67% of the overall adhesive tape market. This is very substantial, Mr. Yadav shared, and came as a surprise to his team as they were reviewing the data for this presentation. Sales in the next largest category, masking tapes, will be driven by construction and automotive production particularly in Asia/Pacific.

The specialised tapes segment is actually leading the adhesive tape trend at 5.4% YoY, growing more than the global growth rate of 5% YoY. Those tape-related businesses who are involved in medical tapes know that it is an interesting sector, which is growing due to the rise in healthcare accessibility worldwide.



PSA Demand Overview

- By 2018 world PSA sales will increase:
 - 5% YoY to be 50 bil m²
 - 6.5% YoY in market value to be bil \$ 55.5.
 - Average selling price is 1.11 \$/m²
- The greatest share of PSA production to be in the APAC region.
- Carton Sealing tape will continue to account for over 2/3rd of PSA sales.
- The second largest category, Masking tape sales will be driven by construction and automotive production particularly in APAC.
- Appreciable gains in specialized tapes.
- Medical tape sales will increase due to increased healthcare accessibility around the world.



Market players

As in many industries, 20% of the global market share is actually led by 4 big players: 3M, tesa, Nitto Denko, and Lintec.

Adhesive tape sales

Adhesive tape sales is an interesting subject, because they are not directly linked to other factors within the tape industry which actually affect sales. Most of the influences Freedonia mentions are external, such as consumer income, inflation, and per

capita GDP.

World economic outlook (GDP), market environment

With China and India continuing to post the fastest growth rates, global GDP is set to expand 3.8% YoY through 2018. Asia/Pacific and African manufacturers will lead the trend with growth higher than 3.8% YoY, while the rest of the regions of the world will post growth lower than the average.

Mr. Yadav states that GDP growth is directly linked to the use of tape, so as the GDP grows, we will see an upward trend in the use of tape. The world's developed economies (higher income levels) have the highest levels of per capita tape consumption, which ranges from 20 square metres per capita in the US and Taiwan, to less than 1 square metre per capita in the poorest areas of Africa and Asia.

Western Europe will demonstrate modest economic recovery, supporting export-oriented industries in Eastern Europe, stimulating growth there. Demand will increase in Nigeria and Sub-Saharan Africa due to the emerging middle classes. Strong growth in South America will be concentrated in Chile, Colombia, and Peru.

Market environment: Pricing trends

Pricing is dependent upon a number of influencing factors, of which Freedonia mentions 7: raw materials, labour, production equipment, environmental compliance, energy, containers, and transportation. Among the global regions, price variances are huge, ranging from \$1 per square metre for commodity plastic tapes used in undemanding

The European adhesive tape network.
Educational events. Technical standards. Market trends. Environmental regulations.

applications, to \$40 per square metre for specialised industrial applications. The average selling price of \$1 per square metre in 2013 is set to climb due to the increase of raw materials costs affected by rising oil prices through 2018.

Adhesive tape verticals

There are 5 different business segments which account for up to 95% of adhesive tape used in the market globally: food and beverage, building and construction, electrical and electronics, automotive, and healthcare and hygiene products. Food and beverage is dominated by Asia/Pacific, which is doing phenomenally because of its population size. Building and construction is an even larger segment, driven by the same Asia/Pacific trend. North America and Western Europe follow at a distance.

The largest segment, automotive, is also driven by the Asia/Pacific trend. Mr. Yadav explained that probably most of the companies represented in the audience had seen their production move from various regions of the world to Asia/Pacific. China is the leading automotive manufacturer in the region, with indigenous makers comprising 65% of the total Chinese market volume in production.

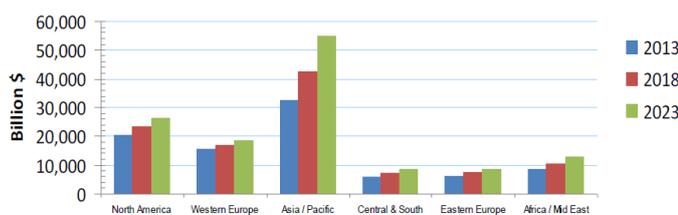
The healthcare and hygiene products segment is led by the North American market. The markets of Western Europe and Asia/Pacific should be watched, however, as they will pick up markedly around 2018. Mr. Yadav said that access to and usage of healthcare is still not widespread, but it is certainly picking up and will grow significantly in the medium term.

Raw materials

Raw materials is essentially the biggest component for the tape manufacturing business. In some cases, Mr. Yadav says, the price of raw materials makes up almost 82% of the cost of the finished product. The use of backing and adhesive materials is expected to lag in the adhesive tape market going forward. Two significant trends: 1) Moving towards lightweight materials, and 2) Moving toward down-gauging these specifications (using thinner backings and adhesive coatings while maintaining or even improving the quality of the product). Most of these activities are driven by environmental and financial concerns.



World Economic Outlook (GDP)



- World GDP to expand 3.8% YoY through to 2018 (faster than 2008 – 2013 but slower than 2003 – 2008).
- China and India will continue to post growth rates that are fastest in the world.
- Modest economic recovery in Western Europe will support export oriented industries in Eastern Europe, sparking growth in the region.
- Africa/Middle East GDP will rise by 4.1% YoY through to 2018.
- The rise in the middle classes will push this demand higher in Nigeria and Sub Saharan Africa.
- Central and South America will see GDP rise to 3.5% through to 2018, benefiting from strong growth in Chile, Colombia, and Peru. Brazil is projected to have moderate advances in real GDP.

The adhesive accounts for the largest part of costs associated with adhesive tape. It is also the most critical component, as it determines how well it sticks. Mr. Yadav highlighted a change in the way tape businesses use adhesives systems. Major industry players are investing in solvent recovery systems to slow the transition to aqueous formulations. Western Europe has developed its chemistry for regulatory reasons, marking a trend towards water-based and hot melt adhesives systems. This will continue. The adhesive tape market will see increased use of hot melt adhesives in particular due to its environmental advantages, such as low energy requirements, lower production costs as opposed to solvent-borne types, and considerable reduction in investment and coating costs associated with converting from solvent to hot melt.

Tape backing materials: Demand overview

There are 3 types of backing which comprise 90% of the European market: polypropylene (PP), paper, and polyvinyl chloride (PVC). The demand for backing materials will increase with the predicted expansion of the global sales volume of the adhesive tape market from 39.3 billion square metres in 2013 to 50.15 billion square metres in 2018. As the market size grows, the split between the backing materials categories will remain the same. This is why most companies are choosing to maintain the same levels of investment.

Polypropylene

The European adhesive tape network.

Educational events. Technical standards. Market trends. Environmental regulations.

The PP market is expected to grow slightly above the 5% YoY global average at 5.1% from 2013 to 2018 (from 24.77 to 31.79 billion square metres). All global regions will expand in this business segment. PP accounted for 63% of total adhesive tape in 2013. Accelerated gains for corrugated boxes will drive this growth through 2018. North America and Western European markets will see their market shares for PP contract slightly by 2018.

Paper

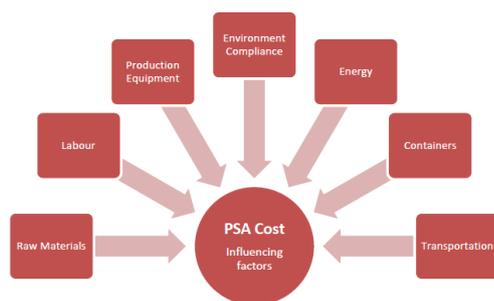
The paper market is expected to grow slightly less than the 5% YoY global average at 4.9% YoY from 2013 to 2018 (from 5.42 to 6.89 billion square metres). Again, all global regions will expand in this business segment. Masking tapes will drive this growth, even though they are not utilised in growing markets such as electronics and industrial bonding. As paper is recyclable and repulpable, what will also drive growth in this category is the trend toward using more environmentally friendly products. As the paper market scale expands, however, the Western European market share will contract 2% by 2018.

Polyvinyl chloride

PVC is a smaller business segment, which is predicted to grow at 2.5% YoY from 2013 to 2018 (from 2.13 to 2.4 billion square metres). Western Europe will be the only region which will see a decline in market share by 2018. This will probably be attributed to environmental (VOC) concerns. Second, as China has used its stored capacity in which it is heavily invested, and because it is not highly regulated in this area, commodities will migrate to that region. In the rest of the world, demand will be weak.



Market Environment Pricing Trends



Prices can vary between countries and regions due to:

- Local inflation rates
- Local demand.
- Availability of raw material

Globally prices:

- Range from 1 \$/m² for commodity plastic tape used in undemanding applications to 40 \$/m² for specialised industrial application
- In 2013 average selling price was 1 \$/m² however as this is linked to raw material costs it is set to increase mainly due to oil prices, which (by historical standards) will remain high through 2018.

Other tape backing materials

The other approximately 10% of backing materials is a segment which is actually growing above the global average, at 5.4% YoY from 2013 to 2018 (from 6.97 to 9.1 billion square metres). The use of medical grade cloth, foam, fibreglass, fabrics, glass cloth, reinforced epoxy, polyester, PEN, polyimide, and PTFE will grow in all regions. Mr. Yadav says that because it consists of many varieties and nuances, this category is developing across different lines and holds great

potential for developing good profit margins. The market shares for Western Europe and North America however, will decline as the overall market grows.

North America

North America is predicted to perform slightly below the global average. Overall projected sales will increase by 3.2% YoY to 9.9 billion square metres in 2018. The adhesive tape market is stable, the US maintaining about 84% of the share. Mexico will outpace the region's growth by a small margin through 2018. In 2013, carton sealing tapes accounted for 60% of North American tape sales (lower than the global average of 67%), and PP made up 58%.

Market trends: Smaller but faster-growing niche applications, such as cloths, foams, and non-wovens, will see faster-than-average gains.

Western Europe

Western European regional tape production will rise a modest 1.2% annually to 6.3 billion square metres in 2018. This will be due in part to capacity moving from Western Europe to Eastern Europe. Germany has the largest regional market share with 23% of the total. France, Italy, UK, and Spain each account for at least 10% of the market. Italy will remain the largest regional producer, supplying both Eastern and Western Europe in great quantities.

The European adhesive tape network.

Educational events. Technical standards. Market trends. Environmental regulations.

Market trends: Western Europe will maintain its competitive edge in specialty tapes as it possesses the required technology which is lacking in other parts of the world. Businesses which invest in particular specialty tapes will give themselves an edge in those segments. Second, solvent-based adhesives will continue to be replaced by environmentally friendly water-borne and hot melt types. This particular segment will be very different to what the industry has seen in the past in terms of the types and amounts of investment in this shift.

Asia/Pacific

Asia/Pacific represents the largest global regional market. Furthermore, Asia/Pacific is leading in most adhesive tape business segments. In the region, sales of adhesive tape totalled 19.1 billion square metres in 2013 and are projected to increase by 6.4% YoY to 26.1 billion square metres in 2018. China will account for 65% of this total. Continued expansion in China, India, and Indonesia will drive growth. Production in Asia/Pacific will also rise 6.4% annually to 30.5 billion square metres in 2018.

Market trends: An increasing amount of tape production will feature PP. Even though healthcare and hygiene tapes are currently less intensively used in non-advanced economies, the medical tape market will grow significantly because of population size and improving healthcare infrastructures. Making up 73% of regional tape sales (slightly higher than in North America and Western Europe), carton sealing tapes will remain a strong segment.

We will also see increased packaged goods consumption and production linked to climbing income per capita. Japanese motor vehicle production, which accounted for half of the regional production in 2003, will drop to 15% by 2018, partly due to automakers shifting production to Thailand, Malaysia, and other Asian locations due to proximity.

Central and South America

Total sales in Central and South America reached 2.1 billion square metres, i.e., 5% of the global market, in 2013. They are set to grow by 4.7% YoY to 1.4 billion square metres in 2018. Here Brazil is the leading player, holding about 45% of the total market share. Excluding Brazil, sales in the region amounted to 1.1 billion square metres in 2013 and are expected to increase by 4.4% YoY to 1.4 billion square metres in 2018. Other significant markets include Argentina, Venezuela, and Colombia.

Trends: Primarily controlled by Brazil, Argentina, Chile, and Colombia, regional tape shipments are considerable and will increase by 4.6% YoY to 1.65 billion square metres by 2018. For instance, most of Brazil's tape exports go to Argentina, Chile, Colombia, Ecuador, Peru, Uruguay, and Venezuela. Brazil's expansion in manufacturing and construction activities will boost the regional demand for specialty, electronics, electrical, and double-sided tapes.



Eastern Europe

Adhesive tape demand is projected to increase to 4.8% YoY to 2.6 billion square metres in 2018.

Market trends: Activity in this region is a newer trend of the last decade. Market growth will be linked to the rising income of the expanding middle class. This will drive demand for consumer goods, leading to an increase in manufacturing. Eastern European packaging markets will range from moderate activity in more advanced EU Member States, such as Czech Republic, Hungary, and Poland, to more limited activity in less developed countries, such as Albania and some of the Balkan states. Carton sealing tape accounted for 62% of the tape used in Eastern Europe in 2013.

EU Membership will continue to make Eastern European countries more attractive to Western Europe. These factors will boost growth in countries like Czech Republic and Poland. Political flare-ups such as tension between Russia and Ukraine however, could affect growth negatively.

The European adhesive tape network.
Educational events. Technical standards. Market trends. Environmental regulations.

Africa/Mideast

The Africa/Mideast region comprises 80 countries and territorial dependencies located on or near the African continent and Arabian Peninsula, or the westernmost sub-region of Asia from Iran westward to the Mediterranean Sea. The region's population increased 2.3% annually from 2003 to 2013, surpassing 1.4 billion, making Africa/Mideast the second most populous global region after Asia/Pacific. The largest manufacturers are in South Africa and Turkey, which both have sizable manufacturing bases in comparison with other countries in the region.

Market trends: Real GDP in Africa/Mideast is set to rise 4.1% through 2018, the second fastest pace of the global regions. This is partly attributed to the rising population of the middle class and a significant young demographic (people aged 20 to 25 in particular), both creating good supply and demand. Adhesive tape sales totalled 1.6 billion square metres in 2013, accounting for 4% of the global market, and are expected to increase 6% YoY to 2.1 billion square metres in 2018, so, according to Mr. Yadav, this will be a region to watch.

The best opportunities for growth in the Africa/Mideast will lie in the more developed countries, such as Israel, Saudi Arabia, South Africa, and Turkey. Carton sealing tapes will remain the largest adhesive tape segment, accounting for 62% of total sales in 2018. Demand for masking tapes in Turkey in particular will increase due to building and construction expenditures. Adhesive tape demand in Iran and Turkey will be bolstered by the motor vehicles industry. Again, social-political tensions in Africa/Mideast could negatively affect growth.

About Anurag Yadav

With over a decade of experience in the adhesive tape industry, Anurag Yadav is currently Head of Global Product Portfolio Management at Scapa Group plc. He is responsible for strategic planning, development, and execution of the global industrial product portfolio and global marketing for the group and is based at the company's headquarters in Manchester, UK. Before joining Scapa UK in 2013, Mr. Yadav was National Sales Manager at Scapa India, where he set up the Indian subsidiary and provided strategic direction and leadership towards its future growth. He previously worked at 3M India where he earned 3 of the company's prestigious awards in innovation and sales. Mr. Yadav holds degrees from Manchester Business School and the Indian Institute of Technology.

Questions and comments?

Anurag Yadav
Head of Global Product Portfolio Management
Scapa Group plc, UK
Anurag.Yadav@scapa.com
T +44 161 301 7489
M +44 7919005140
Manchester Road
Ashton Under Lyne
Greater Manchester – OL7 0ED
United Kingdom
www.scapa.com